

Notice of Allowability

Application No.

10/802,752

Examiner

Mark Connolly

Applicant(s)

CHOU ET AL.

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the interview conducted 12/27/06 - 1/2/07.
2. ☒ The allowed claim(s) is/are 2-4,6,8-10 and 12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20070103.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joe McKinney Muncy, Reg. No. 32,334 on January 3, 2007.

2. The application has been amended as follows:

In the claims: Please amend claims 1-2, 5-6, 7-8 and 11-12 as follows:

Please cancel claims 1, 5, 7 and 11.

Please replace claims 2, 6, 8 and 12 with the following:

Claim 2: A power management method of an electronic device that can be operated under at least a first operation state and a second operation state, said electronic device having a first power mode and a second power mode, said method comprising steps of:

setting up a sampling time span that includes a plurality of sampling time units;

determining the operation state of said electronic device at each said sampling time unit,

wherein determining the operation state of said electronic device at said sampling time unit comprises steps of:

calculating an accumulated quantity of transferred data at the beginning of said

sampling time unit;

calculating a temporary accumulated quantity of transferred data at the end of said sampling time unit;

comparing said temporary accumulated quantity of transferred data with the accumulated quantity of transferred data; and

categorizing the operation state of said electronic device during said sampling time unit as being said first operation state when said temporary accumulated quantity of transferred data substantially equals said accumulated quantity of transferred data;

calculating a first ratio of said sampling time units in which said electronic device is operated under said first operation state; and

operating said electronic device according to said first ratio, wherein said electronic device is switched to said first power mode when said first ratio is larger than predetermined value, wherein said electronic device is switched to said second power mode when said first ratio is smaller than the predetermined value.

Claim 6: A power management method of an electronic device that can be operated under at least a first operation state and a second operation state, said electronic device having a first power mode and a second power mode, said method comprising steps of:

setting up a sampling time span that includes a plurality of sampling time units;

determining the operation state of said electronic device at each said sampling time unit, wherein determining the operation state of said electronic device at said sampling time unit comprises steps of:

calculating an accumulated quantity of transferred data at the beginning of said sampling time unit;

calculating a temporary accumulated quantity of transferred data at the end of said sampling time unit;

comparing said temporary accumulated quantity of transferred data with the accumulated quantity of transferred data; and

categorizing the operation state of said electronic device during said sampling time unit as being said first operation state when said temporary accumulated quantity of transferred data substantially equals said accumulated quantity of transferred data;

calculating a first number of said sampling time units in which said electronic device is operated under said first operation state; and

operating said electronic device according to said first number, wherein said electronic device is switched to said first power mode when said first number is larger than predetermined value, and wherein said electronic device is switched to said second power mode when said first number is smaller than the predetermined value.

Claim 8: A power management system of an electronic device that can be operated under at least a first operation state and a second operation state, said electronic device having a first power mode and a second power mode, said power management system comprising:

a setup unit for setting up a sampling time span including a plurality of sampling time units;

a state determination unit for determining the operation state of said electronic device at each said sampling time unit, the state determination unit comprising:

a first calculation unit for calculating an accumulated quantity of transferred data at the beginning of said sampling time unit;

a second calculation unit for calculating a temporary accumulated quantity of transferred data at the end of said sampling time unit;

a check unit for comparing said temporary accumulated quantity of transferred data with the accumulated quantity of transferred data, wherein the operation state of said electronic device during said sampling time unit is categorized to be said first operation state when said temporary accumulated quantity of transferred data substantially equals said accumulated quantity of transferred data;

an arithmetic unit for calculating a first ratio of said sampling time units in which said electronic device is operated under said first operation state; and

a decision unit for operating said electronic device according to said first ratio, wherein said electronic device is switched to said first power mode when said first ratio is larger than a predetermined value, wherein said electronic device is switched to said second power mode when said first ratio is smaller than the predetermined value.

Claim 12: A power management system of an electronic device that can be operated under at least a first operation state and a second operation state, said electronic device having a first power mode and a second power mode, said power management system comprising:

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a setup unit for setting up a sampling time span including a plurality of sampling time units;

a state determination unit for determining the operation state of said electronic device at each said sampling time unit, the state determination unit comprising:

a first calculation unit for calculating an accumulated quantity of transferred data at the beginning of said sampling time unit;

a second calculation unit for calculating a temporary accumulated quantity of transferred data at the end of said sampling time unit;

a check unit for comparing said temporary accumulated quantity of transferred data with the accumulated quantity of transferred data, wherein the operation state of said electronic device during said sampling time unit is categorized to be said first operation state when said temporary accumulated quantity of transferred data substantially equals said accumulated quantity of transferred data;

an arithmetic unit for calculating a first number of said sampling time units in which said electronic device is operated under said first operation state; and

a decision unit for operating said electronic device according to said first number, wherein said electronic device is switched to said first power mode when said first number is larger than a predetermined value, wherein said electronic device is switched to said second power mode when said first number is smaller than the predetermined value.

3. Pursuant to MPEP 606.01, the title has been changed to read:

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**-- A SYSTEM AND METHOD FOR SELECTING A POWER MODE FOR A
DEVICE BASED ON THE DEVICES OPERATING STATE AT EACH OF A
PLURALITY OF SAMPLING TIME UNITS --**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Connolly
Examiner
Art Unit 2115

mc
January 4, 2007


**CHUN CAO
PRIMARY EXAMINER**